Virginia Electric and Power Company North Anna Power Station P. O. Box 402 Mineral, Virginia 23117

April 24, 2001

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D. C. 20555 Serial No.: 01-241 NAPS: JHL Docket No.: 50-339 License No.: NPF-7

Dear Sirs:

Pursuant to 10CFR50.73, Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Unit 2.

Report No. 50-339/2001-002-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to the Management Safety Review Committee for its review.

Very truly yours,

D. A. Heacock Site Vice President

Commitments contained in this letter: None

Enclosure

cc: U. S. Nuclear Regulatory Commission Region II Sam Nunn Atlanta Federal Center 61 Forsyth Street, SW, Suite 23T85 Atlanta, Georgia 30303-8931

> Mr. M. J. Morgan NRC Senior Resident Inspector North Anna Power Station

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#### NRC FORM 366

# U.S. NUCLEAR REGULATORY

## APPROVED BY OMB NO. 3150-0104 EXPIRES 6-30-2001

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bis1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection. COMMISSION (1-2001) LICENSEE EVENT REPORT (LER)

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(See reverse for required number of digits/characters for each block)		

**FACILITY NAME (1)** NORTH ANNA POWER STATION UNIT 2 DOCKET NUMBER (2) 05000 339

3 1 of

PAGE (3)

TITLE (4)

# MANUAL REACTOR TRIP DUE TO CONTROL BANK "B" GROUP 2 STEP COUNTER INOPERABLE

EVENT	EVENT DATE (5)					REPORT DATE (7)				CILITIES INVOLVED (8)	
мо	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	МО	DAY	YEAR	FACILITY NAME		DOCKET NUMBER 05000
03	11	2001	2001	- 02 -	00	04	24	2001	FACILITY NAME		DOCKET NUMBER 05000
THIS PEPOPT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)											
OPERATIN MODE (9		3	20.	2201(b)		20.220	3(a)(3)	ii)		50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
			20.	2201(d)		20.220	20.2203(a)(4)			50.73(a)(2)(iii)	50.73(a)(2)(x)
POWER LEVEL (10		0	20.	2203(a)(1)		50.36(	c)(1)(i)(	A)	x 50.73(a)(2)(iv)(A)		73.71(a)(4)
40.00		- 1-1-1-1	20.	2203(a)(2)(i)		50.36(	c)(1)(ii)(	A)		50.73(a)(2)(v)(A)	73.71(a)(5)
100			20.:	2203(a)(2)(ii)		50.36(	c)(2)			50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in
The second second				2203(a)(2)(iii)		50.46(	a)(3)(ii)			50.73(a)(2)(v)(C)	NRC Form 366A
				2203(a)(2)(iv)		50.73(	a)(2)(i)(	A)		50.73(a)(2)(v)(D)	
				2203(a)(2)(v)	1		a)(2)(i)(			50.73(a)(2)(vii)	
				2203(a)(2)(vi)					50.73(a)(2)(viii)(A)		
				2203(a)(3)(i)		50.73(	a)(2)(ii)			50.73(a)(2)(viii)(B)	

LICENSEE CONTACT FOR THIS LER (12)

TELEPHONE NUMBER (Include Area Code) NAME (540) 894-2101 David A. Heacock

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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 11, 2001, at 0109 hours, with Unit 2 at 0 percent power (Mode 3) and shutting down for refueling, the control bank "B" group 2 step counter demand position indicator stopped moving at 53 steps. The Limiting Condition for Operation (LCO) for Technical Specification 3.1.3.3 requires the rod group step counter demand position indicator to be within plus or minus 2 steps of the demand position from the logic cabinet for each shutdown or control rod group not fully inserted. The control bank "B" group 2 step counter demand position indicator was greater than 2 steps from the demand position from the logic cabinet. The action requirements of TS 3.1.3.3 require the reactor trip breakers to be opened within 15 minutes if the LCO requirements cannot be met. At 0119 hours, a manual reactor trip was initiated by opening the reactor trip breakers. At 0428 hours, an 8 hour report was made to the NRC Operations Center in accordance with 10 CFR 50.72(b)(3)(iv)(A). The cause for the control bank "B" group 2 step counter demand position indicator not moving was determined to be a defect in the down counter gear. This event is reportable per 10 CFR 50.73 (a)(2)(iv)(A) for any event or condition that resulted in the manual actuation of the reactor protection system. No significant safety consequences resulted from this event since the reactor was already subcritical. with the control banks fully inserted, when the reactor trip breakers were opened and the shutdown banks inserted into the core. Therefore, the health and safety of the public were not affected at any time during this event.

NRC FORM 366AU.S. NUCLEAR REGULATORY COMMISSION

(1-2001)

#### LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	L	ER NUMBER (6)			PAGE (3	3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
NORTH ANNA POWER STATION UNIT 2	05000339	2001	- - 001 -	00	2	OF	3

NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

#### 1. DESCRIPTION OF EVENT

On March 11, 2001, at approximately 0109 hours, with Unit 2 at 0 percent power (Mode 3) and shutting down for refueling, the control bank "B" group 2 step counter demand position indicator (EIIS System AA, Component CTR) stopped moving at 53 steps while rods were being driven into the core. All other indications of rod motion were normal. The Limiting Condition for Operation (LCO) for Technical Specification 3.1.3.3 requires the rod group step counter demand position indicator to be within plus or minus 2 steps of the demand position from the logic cabinet for each shutdown or control rod group not fully inserted. The control bank "B" group 2 step counter demand position indicator was greater than 2 steps from the demand position from the logic cabinet. The action requirements of TS 3.1.3.3 require the reactor trip breakers (EIIS - BKR) to be opened within 15 minutes if the LCO requirements cannot be met. Operations personnel continued to insert the control banks into the core. At 0119 hours, a manual reactor trip was initiated by opening the reactor trip breakers, inserting the shutdown banks into the core. At 0428 hours, an 8 hour report was made to the NRC Operations Center in accordance with 10 CFR 50.72(b)(3)(iv)(A). This event is reportable per 10 CFR 50.73 (a)(2)(iv)(A) for any event or condition that resulted in the manual actuation of the reactor protection system.

#### 2. SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

No significant safety consequences resulted from this event since the reactor was already subcritical, with all control banks fully inserted, when the reactor trip breakers were opened and the shutdown banks inserted into the core. Therefore, the health and safety of the public were not affected at any time during this event.

#### 3. CAUSE

The cause of the control bank "B" group 2 step counter demand position indicator not moving was determined to be a defect in the down counter gear such that when the ones column wheel reaches the count of three, the down count coil hammer just misses the gear and is unable to advance the ones column wheel any further.

#### 4. IMMEDIATE CORRECTIVE ACTIONS

Upon discovery of the condition, the "B" control bank group step counter for Group 2 was declared inoperable and the action requirements of TS 3.1.3.3 were entered to open the reactor trip breakers within 15 minutes.

NRC FORM 366AU.S. NUCLEAR REGULATORY COMMISSION

(1-2001)

## LICENSEE EVENT REPORT (LER)

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

## 5. ADDITIONAL CORRECTIVE ACTIONS

A manual reactor trip was initiated by opening the reactor trip breakers, inserting the shutdown banks into the core.

#### 6. ACTIONS TO PREVENT RECURRENCE

The control bank "B" rod group 2 step counter and relay driver were replaced during the refueling outage.

#### 7. SIMILAR EVENTS

Unit 2 LER 1998-001-00, dated April 30, 1998, documents that with Unit 2 at 0 percent power (Mode 3) while inserting control rods in preparation for a refueling outage, the "B" control bank group step counter for Group 2 deviated from the actual rod position by more than the allowable Technical Specification limit of two steps. The cause of this event was attributed to a malfunction of the mechanical drive for the step counter.

#### 8. ADDITIONAL INFORMATION

Unit 1 was operating in Mode 1, at 100 percent power, and was not affected by this event.